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Static Electricity Precautions

1. Don't take this motherboard and components out of their original static-proof package until you are ready to install them.
2. While installing, please wear a grounded wrist strap if possible. If you don't have a wrist strap, discharge static electricity by touching the bare metal of the system chassis.
3. Carefully hold this motherboard by its edges. Do not touch those components unless it is absolutely necessary. Put this motherboard on the top of static-protection package with component side facing up while installing.

Pre-Installation Inspection

1. Inspect this motherboard whether there are any damages to components and connectors on the board.
2. If you suspect this motherboard has been damaged, do not connect power to the system. Contact your motherboard vendor about those damages.

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P63G Series, V1.0
March 2011

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Notice:

1 Owing to Microsoft's certifying schedule is various to every supplier, we might have some drivers not certified yet by Microsoft. Therefore, it might happen under Windows XP that a dialogue box (shown as below) pop out warning you this software has not passed Windows Logo testing to verify its compatibility with Windows XP. Please rest assured that our RD department has already tested and verified these drivers. Just click the "Continue Anyway" button and go ahead the installation.

Hardware Installation
The software you are installing for this hardware:
HSP56 MicroModem
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

Chapter 1 Introduction

This motherboard has a **LGA1155 socket** for latest **2nd Generation Intel® Core™ Family** processors for high-end business or personal desktop markets.

This motherboard is based on **Intel® H61** Express Chipset for best desktop platform solution. H61 is a single-chip, highly integrated, high performance Hyper-Threading peripheral controller, unmatched by any other single chip device controller. This motherboard supports up to 16 GB* of system memory with dual channel DDR3 1333/1066 SDRAM. High resolution graphics via **PCI Express x16** slot, intended for Graphics Interface, is fully compliant to the PCI Express Base Specification revision 2.0. In addition, two **PCI Express** slots are supported. It implements an **EHCI** (Enhanced Host Controller Interface) comp-liant interface that provides eight **USB 2.0** ports (four USB 2.0 ports at the back panel and two USB 2.0 headers support additional four USB 2.0 ports).

The motherboard is equipped with advanced full set of I/O ports in the rear pan-el, including PS/2 mouse and PS/2 keyboard connectors, one HDMI port, one D_sub (VGA) port, one Lan port, four USB 2.0 ports, and audio jacks for micr-ophone, line-in and 6-ch line-out.

In addition, this motherboard supports four SATA 3.0 Gb/s connectors for expansion.

Key Features

The key features of this motherboard include:

LGA 1155 Socket Processor

- Accommodates latest 2nd Generation Intel® Core™ Family processors
- Supports “Hyper-Threading” technology CPU
- One PCI Express x16 Gen2 port supporting up to 5 GB/s direction peak bandwidth

“Hyper-Threading” technology enables the operating system into thinking it’s hooked up to two processors, allowing two threads to be run in parallel, both on separate “logical” processors within the same physical processor.

Note: Due to the DRAM maximum size is 4 GB at present, the memory maximum size we have tested is 8 GB.

Chipset

The Intel® H61 Chipset is a single-chip with proven reliability and performance.

- High performance Host Interface: Supports the **LGA1155 socket** for latest **2nd Generation Intel® Core™ Family** processors
- System Memory Controller Support: DDR3 SDRAM with up to maximum memory of 16 GB*
- Support two PCI Express x1 slots
- Integrade Serial ATA Host Controller with Data transfer rates up to 3.0 Gb/s
- Serial Peripheral Interface (SPI) support
- Integrated Graphics Support with PAVP 1.5
- Intel® High Definition Audio Controller
- USB 2.0: Integrated USB 2.0 interface, supporting up to eight functional ports

Memory Support

- Two 240-pin DIMM sockets for DDR3 1333/1066 SDRAM with Dual-channel architecture
- Maximum installed memory is 16 GB*

Expansion Slots

- One PCI Express x16 slot
- Two PCI Express x 1 slots

Serial ATA

- Serial ATA Controller
- Transfer rate exeedig best ATA (3.0 Gb/s) with scalability to higher rates
- Low pin count for both host and devices

Audio

- 5.1+2 Channel High Definition Audio Codec
- Meets Microsoft WLP3.x (Windows Logo Program) audio requirements
- All DACs supports 44.1k/48k/96k/192kHz sample rate
- Software selectable 2.5V/3.2V/4.0V VREFOUT
- Direct Sound 3D compatible
- Power Support: Digital: 3.3V; Analog: 5.0V

Note: Due to the DRAM maximum size is 4 GB at present, the memory maximum size we have tested is 8 GB.

Onboard LAN (Optional)

• Supports PCI Express™ 1.1 • Integrated 10/100/1000 transceiver • Wake-on-LAN and remote wake-up support
• Supports PCI Express™ 1.1 • Integrated 10/100 transceiver • Wake-on-LAN and remote wake-up support

Onboard I/O Ports

- Two PS/2 ports for mouse and keyboard
- One VGA port
- One LAN port
- One HDMI port
- Four USB 2.0 ports
- Audio jacks for microphone, line-in and 6-ch line-out

BIOS Firmware

The motherboard uses AMI BIOS that enables users to configure many system features including the following:

- Power management
- Wake-up alarms
- CPU parameters
- CPU and memory timing
- Graphic parameters

The firmware can also be used to set parameters for different processor clock speeds.

Dimensions

- Micro ATX form factor of 225x180 mm

Note: Hardware specifications and software items are subject to change without notification.

Package Contents

Your motherboard package ships with the following items:

- ❑ The motherboard
- ❑ Two Serial ATA cables
- ❑ The Software support disk

Optional Accessories

You can purchase the following optional accessories for this motherboard.

- ❑ The Extended USB module
- ❑ The Serial ATA power cable

Note: You can purchase your own optional accessories from the third party, but please contact your local vendor on any issues of the specification and compatibility.

Chapter 2 Motherboard Installation

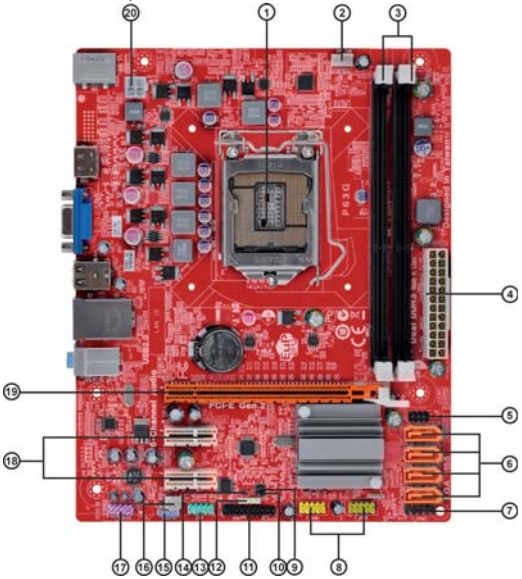
To install this motherboard in a system, please follow these instructions in this chapter:

- ❑ Identify the motherboard components
- ❑ Install a CPU
- ❑ Install one or more system memory modules
- ❑ Make sure all jumpers and switches are set correctly
- ❑ Install this motherboard in a system chassis (case)
- ❑ Connect any extension brackets or cables to headers/connectors on the motherboard
- ❑ Install peripheral devices and make the appropriate connections to headers/connectors on the motherboard

Note:

1. Before installing this motherboard, make sure jumper CLR_CMOS is under Normal setting. See this chapter for information about locating CLR_CMOS and the setting options.
2. Never connect power to the system during installation; otherwise, it may damage the motherboard.

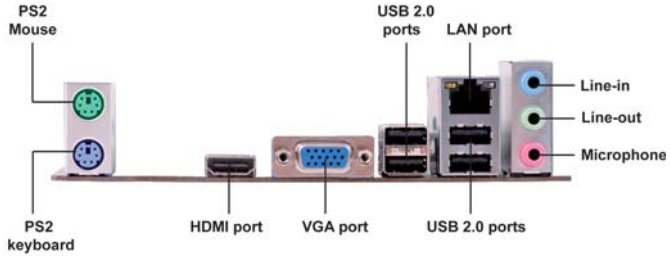
Motherboard Components



LABEL	COMPONENTS
1. CPU Socket	LGA1155 socket for 2nd Generation Intel® Core™ Family Processors
2. CPU_FAN	4-pin CPU cooling fan connector
3. DDR3_1~2	240-pin DDR3 SDRAM slots
4. ATX_POWER	Standard 24-pin ATX power connector
5. SPI_DEBUG	SPI debug header-for factory use only
6. SATA1~4	Serial ATA 3.0 Gb/s connectors
7. F_PANEL	Front panel switch/LED header
8. F_USB1~2	Front panel USB header
9. CASE	CASE open header
10. ME_UNLOCK	ME unlock header-for factory use only
11. TPM	Trusted Platform Module header
12. SPK	Speaker header
13. CLR_CMOS	Clear CMOS jumper
14. COM	Onboard serial port header
15. SPDIFO	SPDIF out header
16. SYS_FAN	3-pin system cooling fan connector
17. F_AUDIO	Front panel audio header
18. PCIE1~2	PCI Express x1 slots
19. PCIEX16	PCI Express slot for graphics interface
20. ATX12V	4-pin +12V power connector

I/O Ports

The illustration below shows a side view of the built-in I/O ports on the motherboard.



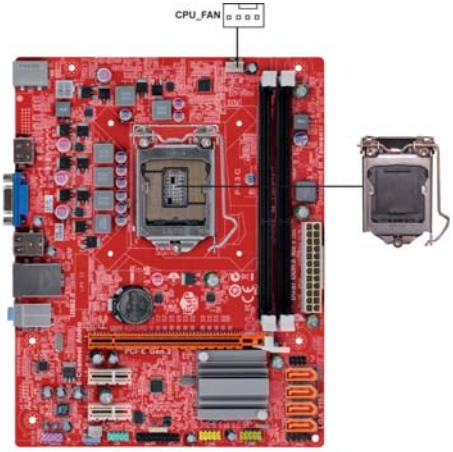
PS/2 Mouse	Use the upper PS/2 port to connect a PS/2 pointing device.
PS/2 Keyboard	Use the lower PS/2 port to connect a PS/2 keyboard.
HDMI Port	Connect the HDMI port to the monitor.
VGA Port	Connect your monitor to the VGA port.
LAN Port	Connect an RJ-45 jack to the LAN port to connect your computer to the Network.
USB 2.0 Ports	Use the USB 2.0 ports to connect USB 2.0 devices.
Audio Ports	Use the three audio jacks to connect audio devices. The first jack is for stereo Line-In signal, the second jack is for stereo Line-Out signal, and the third jack for Microphone.

Installing the Processor

This motherboard has a **LGA1155** socket for latest **2nd Generation Intel® Core ™ Family** processors. When choosing a processor, consider the performance requirements of the system. Performance is based on the processor design, the clock speed and system bus frequency of the processor, and the quantity of internal cache memory and external cache memory.

CPU Installation Procedure

Follow these instructions to install the CPU:



A. Opening of the Load Plate
- Put your thumb on the tail of the load plate and press the tail down.
- Rotate the load plate to fully open position.

B. Disengaging of the Load Lever
- Hold the hook of lever and pull it to the left side to clear retention tab.
- Rotate the load lever to fully open position.

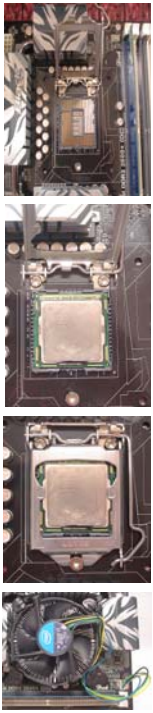
C. Removing the Cap
- Be careful not to touch the contact at any time.

D. Inserting the Package
- Grasp the package. Ensure to grasp on the edge of the substrate.
- Make sure pin 1 indicator is on your bottom-left side.
- Aim at the socket and place the package carefully into the socket by purely vertical motion.

E. Closing the Load Plate
- Rotate the load plate onto the package IHS (Intergraded Heat Spreader).
- Engage the load lever while pressing down lightly onto the load plate.
- Secure the load lever with the hook under retention tab.

F. Fasten the cooling fan supporting base onto the CPU socket on the motherboard.

G. Make sure the CPU fan is plugged to the CPU fan connector. Please refer to the CPU cooling fan user's manual for more detail installation procedure.

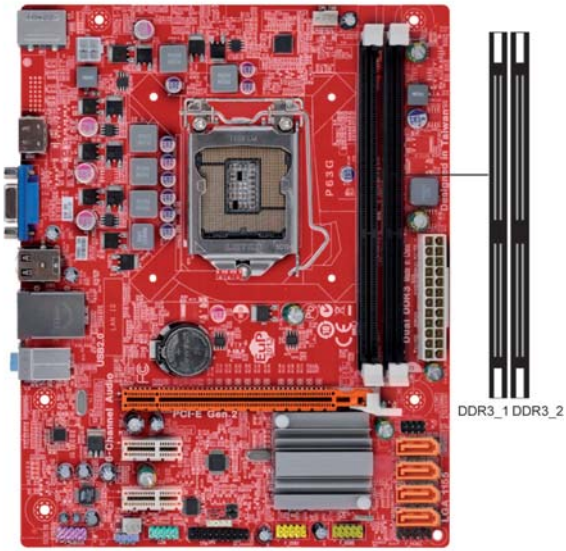


** For reference only*

Note 1: To achieve better airflow rates and heat dissipation, we suggest that you use a high quality fan with 3800 rpm at least. CPU fan and heatsink installation procedures may vary with the type of CPU fan/ heatsink supplied. The form and size of fan/heatsink may also vary.
Note 2: The fan connector supports the CPU cooling fan of 1.1A~2.2A (26.4W max.) at +12V.
Note 3: Do Not remove the CPU cap from the socket before installing a CPU.
Note 4: Return Material Authorization (RMA) requests will be accepted only if the motherboard comes with the cap on the LGA1155 socket.

Installing Memory Modules

This motherboard accommodates two 240-pin DIMM sockets for unbuffered **DDR3 1333/1066** memory modules, and maximum 16 GB* installed memory.

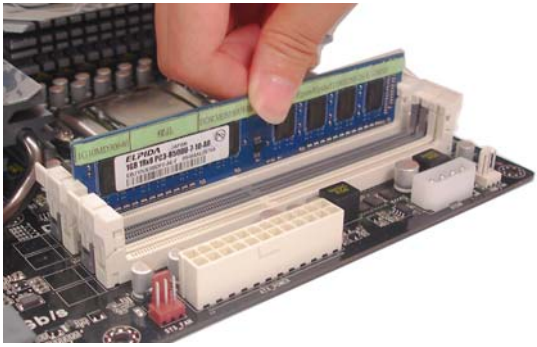


Note: Due to the DRAM maximum size is 4 GB at present, the memory maximum size we have tested is 8 GB.

Memory Module Installation Procedure

These modules can be installed with up to 16 GB* system memory. Refer to the following to install the memory module.

1. Push down the latches on both sides of the DIMM socket.
2. Align the memory module with the socket. There is a notch on the DIMM socket that you can install the DIMM module in the correct direction. Match the cutout on the DIMM module with the notch on the DIMM socket.
3. Install the DIMM module into the socket and press it firmly down until it is seated correctly. The socket latches are levered upwards and latch on to the edges of the DIMM.
4. Install any remaining DIMM modules.



** For reference only*

Note: Due to the DRAM maximum size is 4 GB at present, the memory maximum size we have tested is 8 GB.

Jumper Settings

Connecting two pins with a jumper cap is SHORT; removing a jumper cap from these pins, OPEN.

CLR_CMOS: Clear CMOS Jumper

Use this jumper to clear the contents of the CMOS memory. You may need to clear the CMOS memory if the settings in the Setup Utility are incorrect and prevent your motherboard from operating. To clear the CMOS memory, disconnect all the power cables from the motherboard and then move the jumper cap into the CLEAR setting for a few seconds.

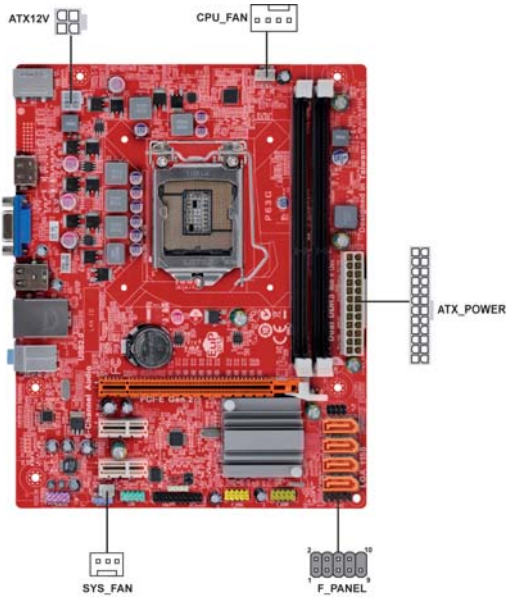
Function	Jumper Setting
Normal	Short Pins 1-2
Clear CMOS	Short Pins 2-3

Note: To avoid the system unstability after clearing CMOS, we recommend users to enter the main BIOS setting page to "Load Optimal Defaults" and then "Save Changes and Exit".

Install the Motherboard

Install the motherboard in a system chassis (case). The board is a Micro ATX size motherboard. You can install this motherboard in an ATX case. Make sure your case has an I/O cover plate matching the ports on this motherboard.

Install the motherboard in a case. Follow the case manufacturer's instructions to use the hardware and internal mounting points on the chassis.



Connect the power connector from the power supply to the **ATX_POWER** connector on the motherboard. The **ATX12V** is a +12V connector for CPU Vcore power.

If there is a cooling fan installed in the system chassis, connect the cable from the cooling fan to the **CPU_FAN** fan power connector on the motherboard.

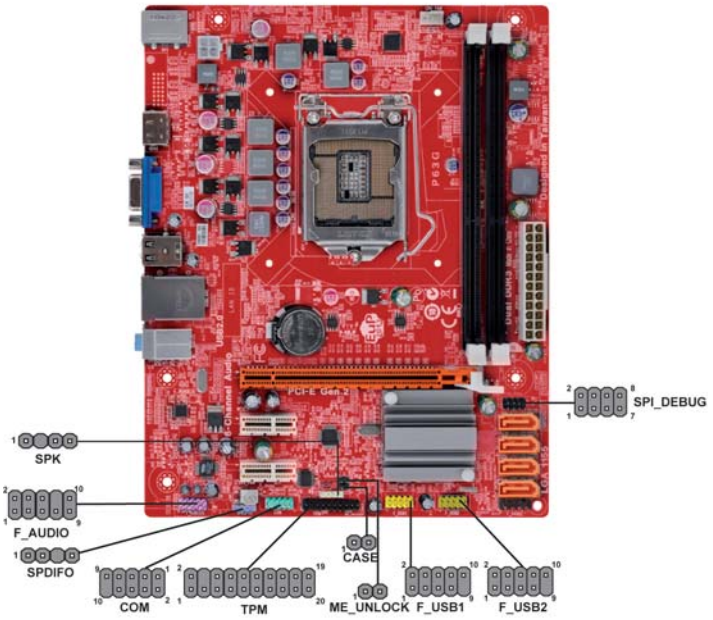
Connect the case switches and indicator LEDs to the **F_PANEL** header.

Here is a list of the F_PANEL pin assignments.

Pin	Signal	Pin	Signal
1	HD_LED_P(+)	2	FP PWR/SLP(+)
3	HD_LED_N(-)	4	FP PWR/SLP(-)
5	RESET_SW_N(-)	6	POWER_SW_P(+)
7	RESET_SW_P(+)	8	POWER_SW_N(-)
9	RSVD_DNU	10	KEY

Connecting Optional Devices

Refer to the following for information on connecting the motherboard's optional devices:



SPK: Speaker Header

Connect the cable from the PC speaker to the SPK header on the motherboard.

Pin	Signal	Pin	Signal
1	VCC	2	Key
3	NC	4	Signal

SPDIFO: SPDIF Out Header

S/PDIF (Sony/Plilips Digital Interface) is a standard audio transfer file format and allows the transfer of digatal audio signals from one device to another without having to be converted first to an analog format. Via a specific audio cable, you can connect the SPDIFO header (S/PDIF output) on the motherboard to the S/PDIF digital input on the external speakers or AC Decode devices.

Pin	Signal	Pin	Signal
1	SPDIFOUT	2	5VA
3	KEY	4	GDN

COM: Onboard Serial Port Header

Connect a serial port extension bracket to this header to add a second serial port to your system.

Pin	Signal	Pin	Signal
1	DCDB	2	SINB
3	SOUTB	4	DTRB
5	GND	6	DSRB
7	RTSB	8	CTSB
9	RI	10	KEY

F_AUDIO: Front Panel Audio Header

This header allows the user to install auxiliary front-oriented microphone and line-out ports for easier access.

Pin	Signal	Pin	Signal
1	PORT1L	2	GND
3	PORT1R	4	PRESENCE#
5	PORT2R	6	Sense1_return
7	SENSE_SEND	8	KEY
9	PORT2L	10	Sense2_return

F_USB1~2: Front Panel USB Headers

The motherboard has four USB ports installed on the rear edge I/O port array. Additionally, some computer cases have USB ports at the front of the case. If you have this kind of case, use auxiliary USB header F_USB to connect the front-mounted ports to the motherboard.

Pin	Signal	Pin	Signal
1	USBPWR0	2	USBPWR1
3	USB_FP_P0(-)	4	USB_FP_P1(-)
5	USB_FP_P0(+)	6	USB_FP_P1(+)
7	GROUND	8	GROUND
9	KEY	10	NC

1. Locate the F_USB header on the motherboard.
2. Plug the bracket cable onto the F_USB header.
3. Remove a slot cover from one of the expansion slots on the system chassis. Install an extension bracket in the opening. Secure the extension bracket to the chassis with a screw.

TPM: Trusted Platform Module header

Trusted platform module (TPM) is a published specification detailing a microcontrollerthat can store secured information, and implementations of that specification.

Pin	Signal	Pin	Signal
1	TPM-CLK	11	LAD0
2	GND	12	GND
3	LFRAME#	13	RESERVE0
4	KEY	14	RESERVE1
5	LREST#	15	VCC3_DUAL
6	SMBDATA	16	SERIRQ
7	LAD3	17	GND
8	LAD2	18	GND
9	VCC3	19	LPCPD#
10	LAD1	20	SMBCLK

CASE: Chassis Intrusion Detect Header

This detects if the chassis cover has been removed. This function needs a chassis equipped with instrusion detection switch and needs to be enabled in BIOS.

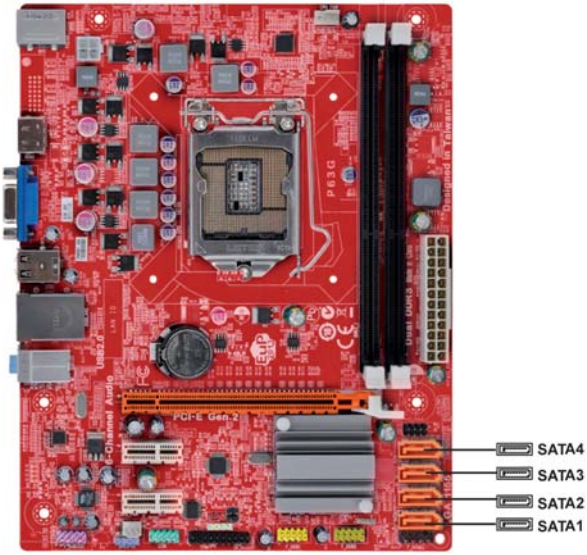
Pin	Fuction
Short	Chassis cover is removed
Open	Chassis cover is closed

ME_UNLOCK: ME Unlock Header

Pin	Fuction
Short	Unlock
Open	Lock

Install Other Devices

Install and connect any other devices in the system following the steps below.



Serial ATA Devices

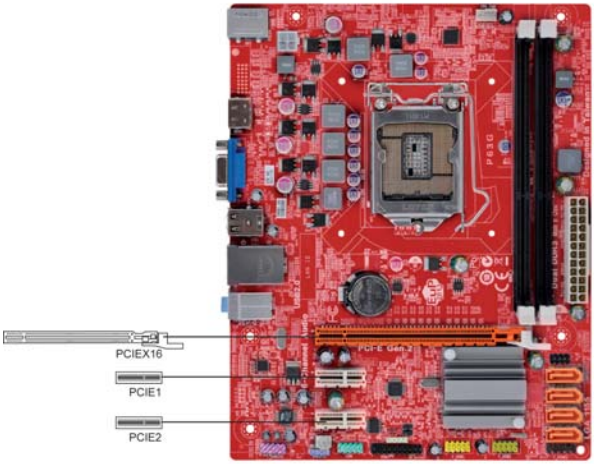
The **Serial ATA (Advanced Technology Attachment)** is the standard interface for the IDE hard drives, which is designed to overcome the design limitations while enabling the storage interface to scale with the growing media rate demands of PC platforms. It provides you a faster transfer rate of **3.0 Gb/s**. If you have installed a Serial ATA hard drive, you can connect the Serial ATA cables to the Serial ATA hard drive or the connector on the motherboard.

On the motherboard, locate the Serial ATA connectors **SATA1~4**, which support new Serial ATA devices for the highest data transfer rates, simpler disk drive cabling and easier PC assembly.

It eliminates limitations of the current Parallel ATA interface, but maintains register compatibility and software compatibility with Parallel ATA.

Expansion Slots

This motherboard has one PCI Express x16, two PCI Express x1 slots.



Follow the steps below to install an PCI Express expansion card.

1. Locate the PCI Express slot on the motherboard.
2. Remove the blanking plate of the slot from the system chassis.
3. Install the edge connector of the expansion card into the slot. Ensure the edge connector is correctly seated in the slot.
4. Secure the metal bracket of the card to the system chassis with a screw.

** For reference only*

PCI Express x16 Slot

You can install an external PCI Express graphics card that is fully compliant to the PCI Express Base Specification revsion 2.0.

PCI Express Slots

You can install two external PCI Express graphics cards that are fully compliant to the PCI Express Base Specification revsion 2.0.

Chapter 3 BIOS Setup Utility

Introduction

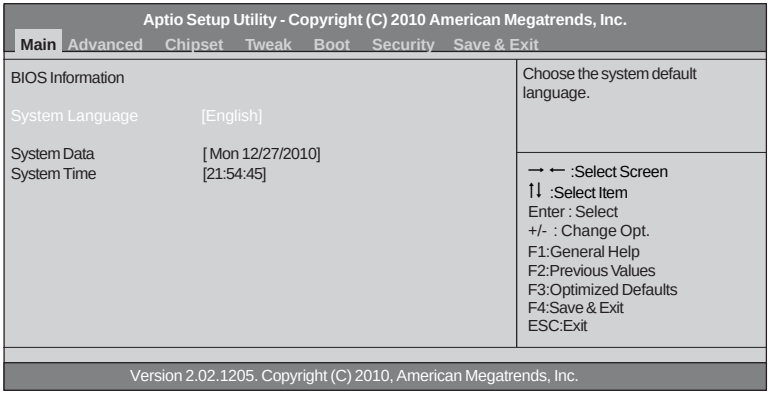
The BIOS Setup Utility records settings and information of your computer, such as date and time, the type of hardware installed, and various configuration settings. Your computer applies the information to initialize all the components when booting up and basic functions of coordination between system components.

If the Setup Utility configuration is incorrect, it may cause the system to malfunction. It can even stop your computer booting properly. If it happens, you can use the clear CMOS jumper to clear the CMOS memory which has stored the configuration information; or you can hold down the **Page Up** key while rebooting your computer. Holding down the **Page Up** key also clears the setup information.

You can run the setup utility and manually change the configuration. You might need to do this to configure some hardware installed in or connected to the motherboard, such as the CPU, system memory, disk drives, etc.

Running the Setup Utility

Every time you start your computer, a message appears on the screen before the operating system loading that prompts you to "*Hit <DEL>if you want to run SETUP*". Whenever you see this message, press the **Delete** key, and the Main menu page of the Setup Utility appears on your monitor.


Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
Main Advanced Chipset Tweak Boot Security Save & Exit
BIOS Information
System Language [English]
System Data [Mon 12/27/2010]
System Time [21:54:45]
Choose the system default language.
→ ← :Select Screen
↑↓ :Select Item
Enter : Select
+/- : Change Opt.
F1:General Help
F2:Previous Values
F3:Optimized Defaults
F4:Save & Exit
ESC:Exit
Version 2.02.1205. Copyright (C) 2010, American Megatrends, Inc.

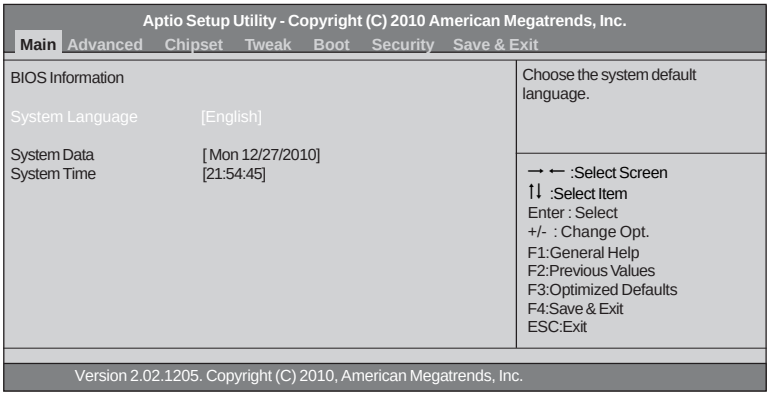
You can use cursor arrow keys to highlight anyone of options on the main menu page. Press **Enter** to select the highlighted option. Press the **Escape** key to leave the setup utility. Press +/-/ to modify the selected field's values.

Some options on the main menu page lead to tables of items with installed values that you can use cursor arrow keys to highlight one item, and press **PgUp** and **PgDn** keys to cycle through alternative values of that item. The other options on the main menu page lead to dialog boxes requiring your answer OK or Cancel by selecting the **[OK]** or **[Cancel]** key.

If you have already changed the setup utility, press **F10** to save those changes and exit the utility. Press **F1** to display a screen describing all key functions. Press **F9** to load optimtimal settings.

Main Setup Page

This page displays a table of items defining basic information of your system.


Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
Main Advanced Chipset Tweak Boot Security Save & Exit
BIOS Information
System Language [English]
System Data [Mon 12/27/2010]
System Time [21:54:45]
Choose the system default language.
→ ← :Select Screen
↑↓ :Select Item
Enter : Select
+/- : Change Opt.
F1:General Help
F2:Previous Values
F3:Optimized Defaults
F4:Save & Exit
ESC:Exit
Version 2.02.1205. Copyright (C) 2010, American Megatrends, Inc.

Multi-Language BIOS

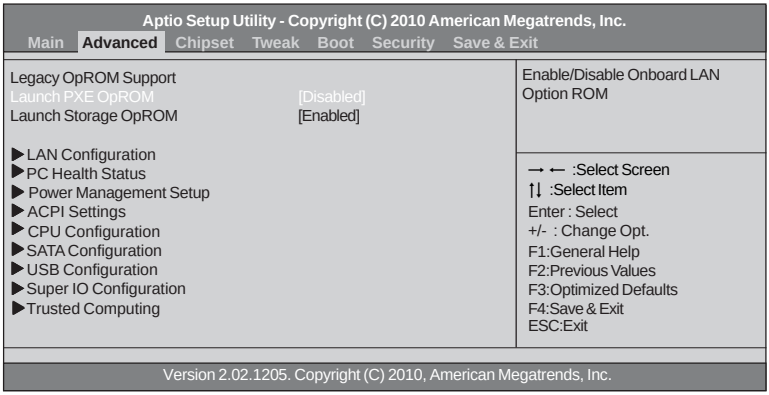
Multi-language BIOS allows you to see and set up the BIOS with your native language. It helps Non-English users to solve the problem of setting up the BIOS and achieve extra system performance easily.

Date & Time

The Date and Time items show the current date and time on the computer. If you are running a Windows OS, these items are automatically updated whenever you make changes to the Windows Date and Time Properties utility.

Advanced Setup Page

This page sets up more advanced information about your system. Handle this page with caution. Any changes can affect the operation of your computer.



Launch PXE OpROM (Disabled)

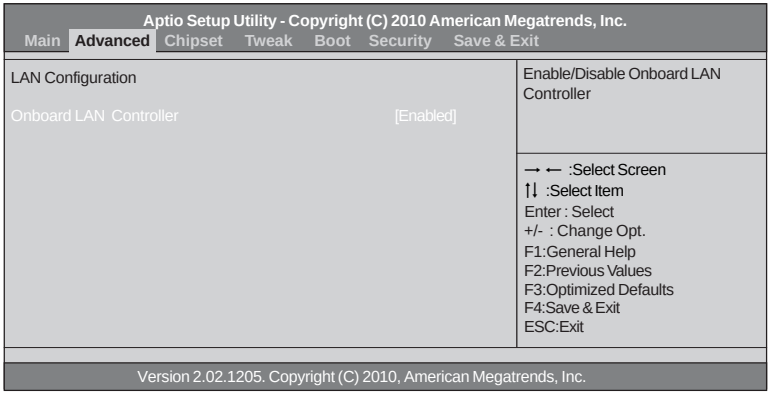
Use this item to enable or disable the PXE OpROM.

Launch Storage OpROM (Enabled)

Use this item to enable or disable the Storage OpROM.

LAN Configuration

The item in the menu shows the LAN-related information that the BIOS automatically detects.


Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
Main Advanced Chipset Tweak Boot Security Save & Exit
LAN Configuration
Onboard LAN Controller [Enabled]
Enable/Disable Onboard LAN Controller
→← :Select Screen
↑↓ :Select Item
Enter : Select
+/- : Change Opt.
F1:General Help
F2:Previous Values
F3:Optimized Defaults
F4:Save & Exit
ESC:Exit
Version 2.02.1205. Copyright (C) 2010, American Megatrends, Inc.

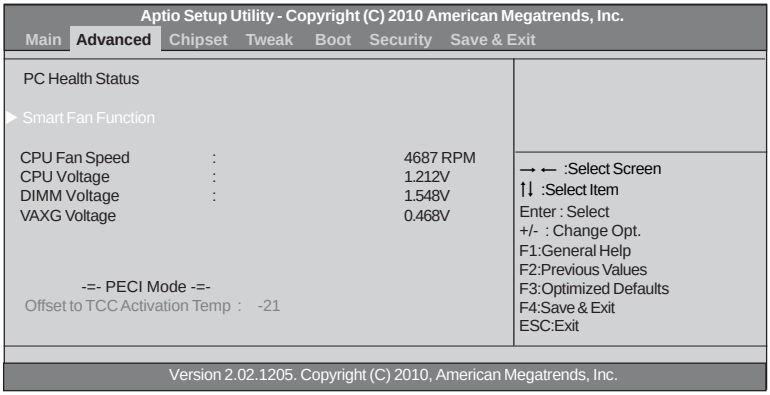
Onboard LAN Controller (Enabled)

Use this item to enable or disable the Onboard LAN.

Press <Esc> to return to the Advanced Menu page.

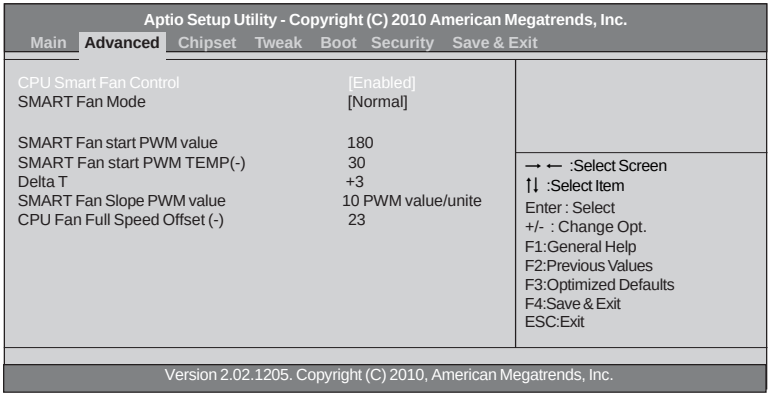
PC Health Status

On motherboards support hardware monitoring, this item lets you monitor the paeameters for critical voltages, temperatures and fan speeds.


Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
Main Advanced Chipset Tweak Boot Security Save & Exit
PC Health Status
Smart Fan Function
CPU Fan Speed : 4687 RPM
CPU Voltage : 1.212V
DIMM Voltage : 1.548V
VAXG Voltage 0.468V
-=- PECI Mode -=-
Offset to TCC Activation Temp : -21
→← :Select Screen
↑↓ :Select Item
Enter : Select
+/- : Change Opt.
F1:General Help
F2:Previous Values
F3:Optimized Defaults
F4:Save & Exit
ESC:Exit
Version 2.02.1205. Copyright (C) 2010, American Megatrends, Inc.

▶ Smart Fan Function

Scroll to this item and press <Enter> to view the following screen:


Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
Main Advanced Chipset Tweak Boot Security Save & Exit
CPU Smart Fan Control [Enabled]
SMART Fan Mode [Normal]
SMART Fan start PWM value 180
SMART Fan start PWM TEMP(-) 30
Delta T +3
SMART Fan Slope PWM value 10 PWM value/unite
CPU Fan Full Speed Offset (-) 23
→← :Select Screen
↑↓ :Select Item
Enter : Select
+/- : Change Opt.
F1:General Help
F2:Previous Values
F3:Optimized Defaults
F4:Save & Exit
ESC:Exit
Version 2.02.1205. Copyright (C) 2010, American Megatrends, Inc.

CPU SMART FAN Control (Enabled)

This item allows you to enable/disable the control of the CPU fan speed by changing the fan voltage.

SMART Fan Mode (Normal)

This item allows you to select the fan mode (Normal, Quiet, Silent, or Manual) for a better operation environment. If you choose Normal mode, the fan speed will be auto adjusted depending on the CPU temperature. If you choose Quite mode, the fan speed will be auto minimized for quiet environment. If you choose Silent mode, the fan speed will be auto restricted to make system more quietly. If you choose Manual mode, the fan speed will be adjust depending on users' parameters.

SMART Fan start PWM value (180)

This item is used to set the start PWM value of the smart fan.

SMART Fan start TEMP(-) (30)

This item is used to set the start temperature of the smart fan.

DeltaT (+3)

This item specifies the range that controls CPU temperature and keeps it from going so high or so low when smart fan works.

SMART Fan Slope PWM value (10 PWM value/unite)

This item is used to set the Slope Select PWM of the smart fan.

CPU Fan Full Speed Offset(-) (23)

This item is used to set the CPU fan full speed offset value.

Press <Esc> to return to the PC Health Status page.

System Component Characteristics

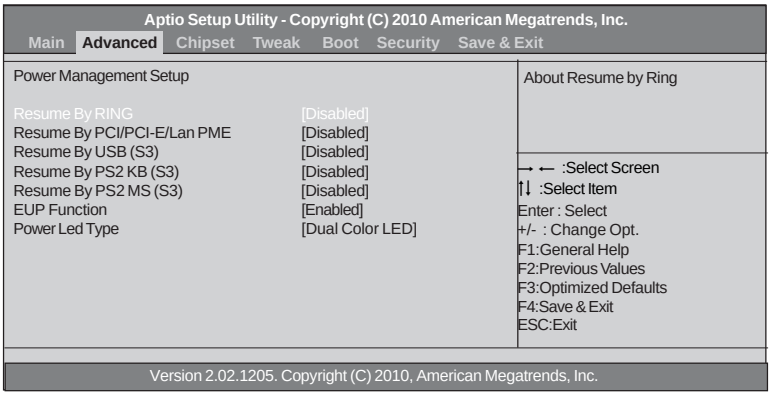
These items display the monitoring of the overall inboard hardware health events, such as System & CPU temperature, CPU & DIMM voltage, CPU & system fan speed,... etc.

- CPU Fan Speed
- CPU Voltage
- DIMM Voltage
- VAXG Voltage

Press <Esc> to return to the Advanced Setup page.

Power Management Setup

This page sets up some parameters for system power management operation.


Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
Main Advanced Chipset Tweak Boot Security Save & Exit
Power Management Setup
About Resume by Ring
Resume By RING [Disabled]
Resume By PCI/PCI-E/Lan PME [Disabled]
Resume By USB (S3) [Disabled]
Resume By PS2 KB (S3) [Disabled]
Resume By PS2 MS (S3) [Disabled]
EUP Function [Enabled]
Power Led Type [Dual Color LED]
→ ← :Select Screen
↑↓ :Select Item
Enter : Select
+/- : Change Opt.
F1:General Help
F2:Previous Values
F3:Optimized Defaults
F4:Save & Exit
ESC:Exit
Version 2.02.1205. Copyright (C) 2010, American Megatrends, Inc.

Resume By RING (Disabled)

The system can be turned off with a software command. If you enable this item, the system can automatically resume if there is an incoming call on the Modem. You must use an ATX power supply in order to use this feature.

Resume By PCI/PCI-E/Lan PME (Disabled)

The system can be turned off with a software command. If you enable this item, the system can automatically resume if there is an incoming call on the PCI Modem or PCI LAN card. You must use an ATX power supply in order to use this feature. Use this item to do wake-up action if inserting the PCI card.

Resume By USB (S3) (Disabled)

This item allows you to enable/disable the USB device wakeup function from S3 mode.

Resume By PS2 KB (S3) (Disabled)

This item enables or disables you to allow keyboard activity to awaken the system from power saving mode.

Resume By PS2 MS (S3) (Disabled)

This item enables or disables you to allow mouse activity to awaken the system from power saving mode.

EUP Support (Enabled)

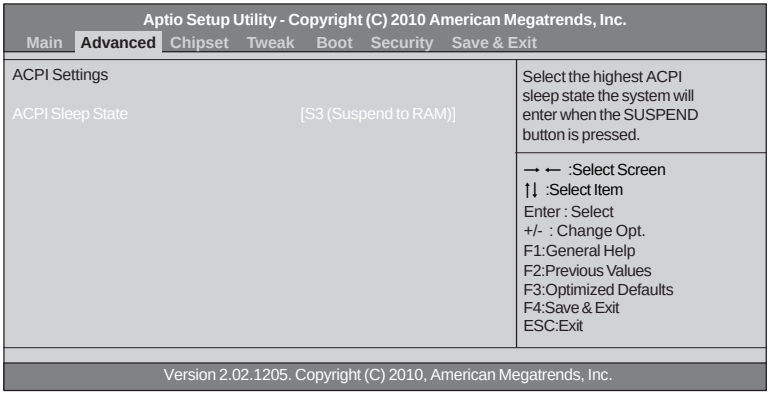
This item allows user to enable or disable EUP support.

Power Led Type (Dual Color LED)

This item shows the type of the power LED.

ACPI Setting

The item in the menu shows the highest ACPI sleep state when the system enters suspend.


Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
Main Advanced Chipset Tweak Boot Security Save & Exit
ACPI Settings
ACPI Sleep State [S3 (Suspend to RAM)]
Select the highest ACPI sleep state the system will enter when the SUSPEND button is pressed.
→ ← :Select Screen
↑↓ :Select Item
Enter : Select
+/- : Change Opt.
F1:General Help
F2:Previous Values
F3:Optimized Defaults
F4:Save & Exit
ESC:Exit
Version 2.02.1205. Copyright (C) 2010, American Megatrends, Inc.

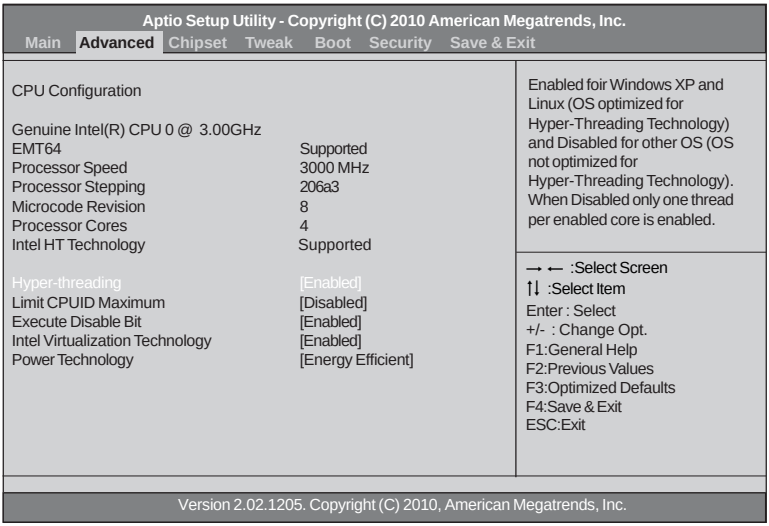
ACPI Sleep State (S3(Suspend to RAM))

This item allows user to enter the APCI S3 (Suspend toRAM) Sleep State(default).

Press <Esc> to return to the Advanced Setup page.

CPU Configuration

Scroll to this item and press <Enter> to view the following screen:


Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
Main Advanced Chipset Tweak Boot Security Save & Exit
CPU Configuration
Genuine Intel(R) CPU 0 @ 3.00GHz
EMT64 Supported
Processor Speed 3000 MHz
Processor Stepping 206a3
Microcode Revision 8
Processor Cores 4
Intel HT Technology Supported
Hyper-threading [Enabled]
Limit CPUID Maximum [Disabled]
Execute Disable Bit [Enabled]
Intel Virtualization Technology [Enabled]
Power Technology [Energy Efficient]
Enabled foir Windows XP and Linux (OS optimized for Hyper-Threading Technology) and Disabled for other OS (OS not optimized for Hyper-Threading Technology). When Disabled only one thread per enabled core is enabled.
→ ← :Select Screen
↑↓ :Select Item
Enter : Select
+/- : Change Opt.
F1:General Help
F2:Previous Values
F3:Optimized Defaults
F4:Save & Exit
ESC:Exit
Version 2.02.1205. Copyright (C) 2010, American Megatrends, Inc.

Genuine Inter(R) CPU 0 @ 3.00GHz

This is display-only field and diaplays the information of the CPU installed in your computer.

EMT64 (Supported)

This item shows the computer supports EMT64.

Processor Speed (3000MHz)

This item shows the current processor speed.

Processor Stepping (206a3)

This item shows the processor stepping version.

Microcode Revision (8)

This item shows the Microcode version.

Processor Cores (4)

This item shows the core number of the processor.

Intel HT Technology (Supported)

This item shows that your computer supports Intel HT technology or not.

Hyper-threading (Enabled)

This item is only available when the chipset supports Hyper-threading and you are using a Hyper-threading CPU.

Limit CPUID Maximum (Disabled)

Use this item to enable or disable the maximum CPUID value limit. When supports Prescott and LGA775 CPUs, enables this to prevent the system from “rebooting” when trying to install Windows NT 4.0.

Excute Disable Bit (Enabled)

This item allows the processor to classify areas in memory by where application code can execute and where it cannot. When a malicious worm attempts to insert code in the buffer, the processor disables code execution, preventing damage or worm propagation. Replacing older computers with Execute Disable Bit enabled systems can halt worm attacks, reducing the need for virus related repair.

Intel Virtualization Technology (Disabled)

When disabled, a VMM cannot utilize the additional hardware capabilities provided by Vandor Pool Technology.

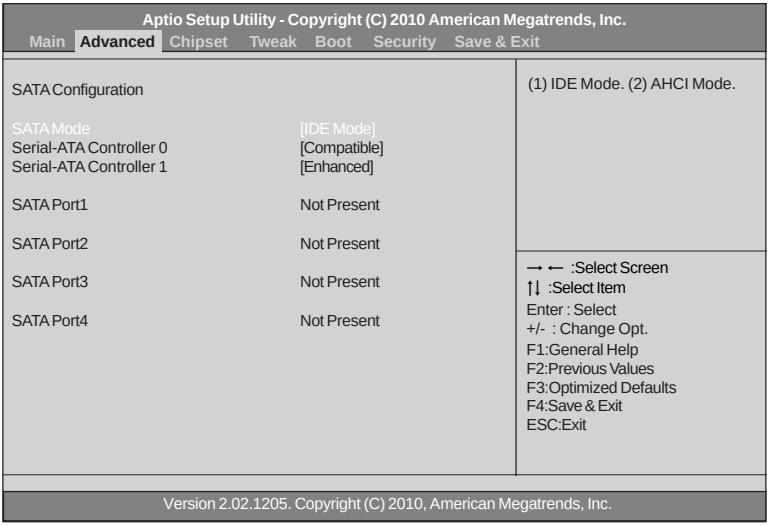
Power Technology (Energy Efficient)

Use this item to control the Energy mode of the processor.

Press <Esc> to return to the Advanced Setup page.

SATA Configuration

Use this item to show the mode of serial SATA configuration options.


Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
Main Advanced Chipset Tweak Boot Security Save & Exit
SATA Configuration
SATA Mode [IDE Mode]
Serial-ATA Controller 0 [Compatible]
Serial-ATA Controller 1 [Enhanced]
SATA Port1 Not Present
SATA Port2 Not Present
SATA Port3 Not Present
SATA Port4 Not Present
(1) IDE Mode. (2) AHCI Mode.
→ ← :Select Screen
↑↓ :Select Item
Enter : Select
+/- : Change Opt.
F1:General Help
F2:Previous Values
F3:Optimized Defaults
F4:Save & Exit
ESC:Exit
Version 2.02.1205. Copyright (C) 2010, American Megatrends, Inc.

SATA Mode (IDE Mode)

Use this item to select SATA mode.

Serial-ATA Controller 0/1 (Compatible/Enhanced)

Use this item to select the Serial-ATA cotroller options: Disabled, Compatible, Enhanced.

SATA Port 1~4 (Not Present)

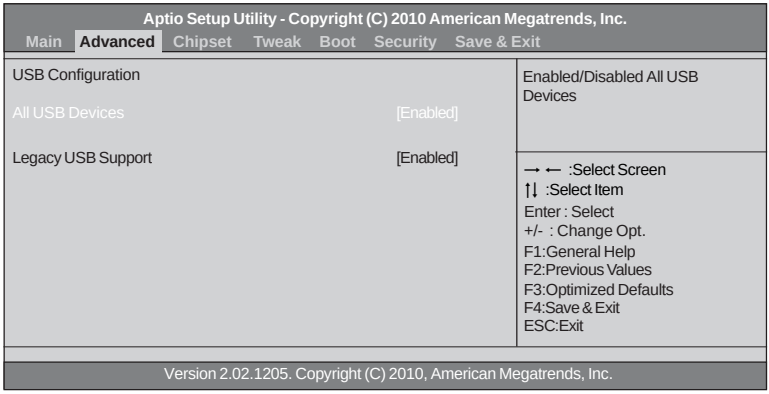
This motherboard supports four SATA channel and each channel allows one SATA device to be installed. Use these items to configure each device on the SATA channel.

Note:H61 Chipset is not fully support AHCI Mode. HW support only.

Press <Esc> to return to the Advanced Setup page.

USB Configuration

Scroll to this item and press <Enter> to view the following screen:



All USB Devices (Enabled)

Use this item to enable or disable all USB devices.

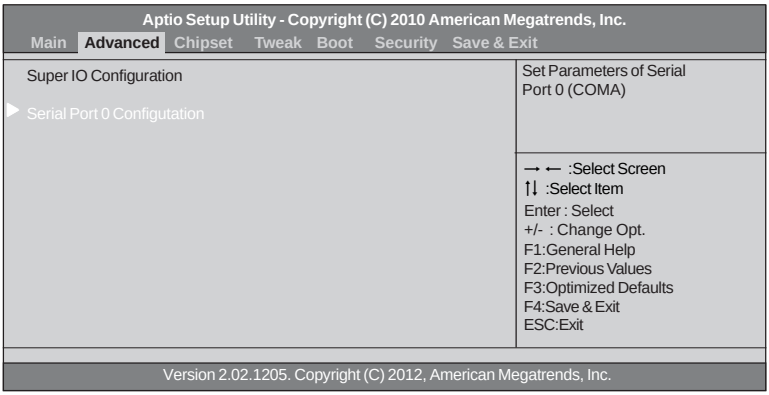
Legacy USB Support (Enabled)

Use this item to enable or disable support for legacy USB devices. Setting toAudio allows the system to detect the presence of the USB device at startup. If detected, the USB controller legacy mode is enabled. If no USB device is detected, the legacy USB support is disabled.

Press <Esc> to return to the Advanced Setup page.

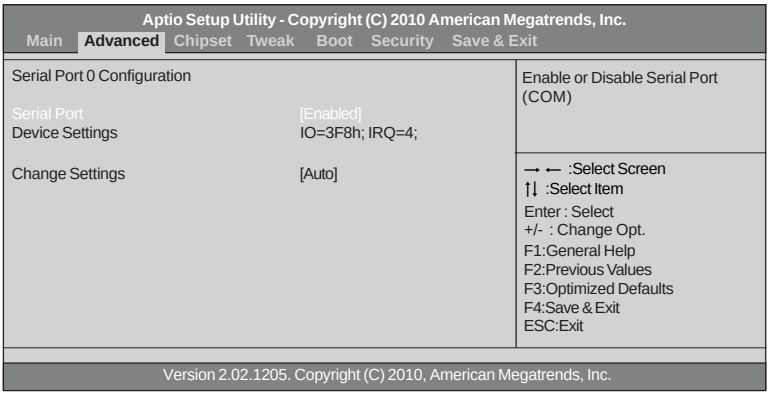
Super IO Configuration

Scroll to this item and press <Enter> to view the following screen:


Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
Main Advanced Chipset Tweak Boot Security Save & Exit
Super IO Configuration
Serial Port 0 Configutation
Set Parameters of Serial Port 0 (COMA)
→ ← :Select Screen
↑↓ :Select Item
Enter : Select
+/- : Change Opt.
F1:General Help
F2:Previous Values
F3:Optimized Defaults
F4:Save & Exit
ESC:Exit
Version 2.02.1205. Copyright (C) 2012, American Megatrends, Inc.

▶ Serial Port 0 Configuration

This item shows the information of the super IO chip.


Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
Main Advanced Chipset Tweak Boot Security Save & Exit
Serial Port 0 Configuration
Serial Port [Enabled]
Device Settings IO=3F8h; IRQ=4;
Change Settings [Auto]
Enable or Disable Serial Port (COM)
→ ← :Select Screen
↑↓ :Select Item
Enter : Select
+/- : Change Opt.
F1:General Help
F2:Previous Values
F3:Optimized Defaults
F4:Save & Exit
ESC:Exit
Version 2.02.1205. Copyright (C) 2010, American Megatrends, Inc.

Serial Port (Enabled)

This item allows you to enable or disable serial port.

Device Settings (IO=3F8h; IRQ=4)

This item shows the information of the device settings.

Change Settings (Auto)

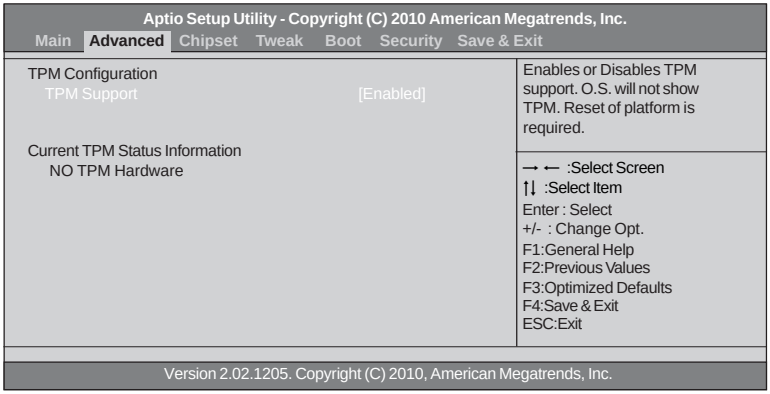
Use this item to change device settings.

Press <Esc> to return to the Super IO Configuration page.

Press <Esc> to return to the Advanced Setup page.

Trusted Computing

Scroll to this item and press <Enter> to view the following screen.


Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
Main Advanced Chipset Tweak Boot Security Save & Exit
TPM Configuration
TPM Support [Enabled]
Current TPM Status Information
NO TPM Hardware
Enables or Disables TPM support. O.S. will not show TPM. Reset of platform is required.
→ ← :Select Screen
↑↓ :Select Item
Enter : Select
+/- : Change Opt.
F1:General Help
F2:Previous Values
F3:Optimized Defaults
F4:Save & Exit
ESC:Exit
Version 2.02.1205. Copyright (C) 2010, American Megatrends, Inc.

TPM Support (Enabled)

This item enables or disables TPM support.

Current TPM Status Information

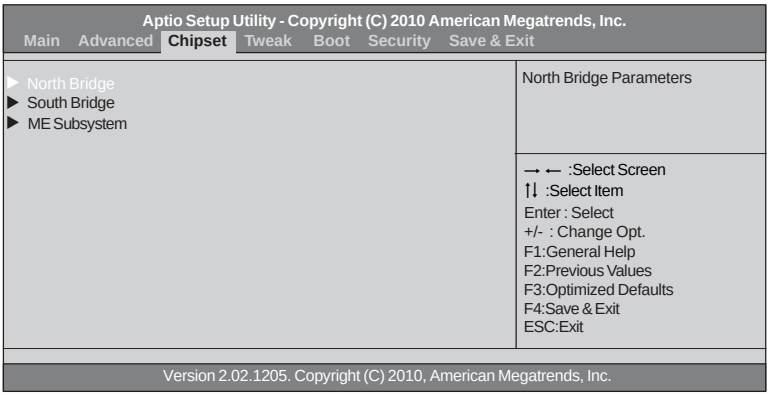
This item shows the information of current TPM status.

NO TPM Hardware

This item shows the TPM status.

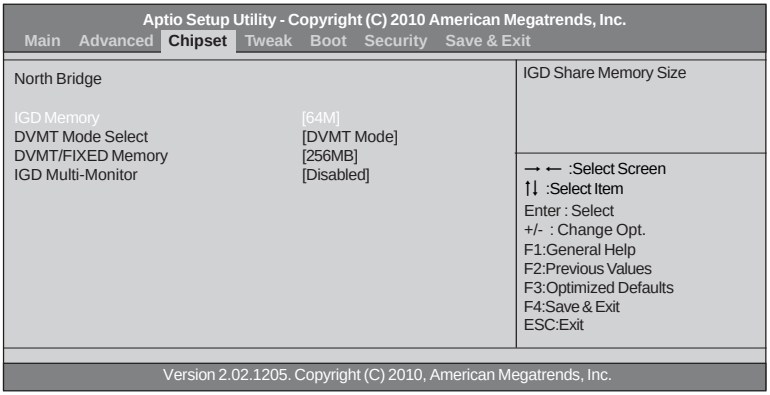
Chipset Setup Page

The chipset menu items allow you to change the settings for the North chipset, South chipset and other system.



►North Bridge

Scroll to this item and press <Enter> and view the following screen:



IGD Memory (64M)

This item shows the information of the IGD(Internal Graphics device) memory.

DVMT Mode Select (DVMT Mode)

This item allows you to select the DVMT operating mode.

DVMT/FIXED Memory (256MB)

When set to Fixed Mode, the graphics driver will reserve a fixed position of the system memory as graphics memory, according to system and graphics requirements.

IGD Multi-Monitor (Enabled)

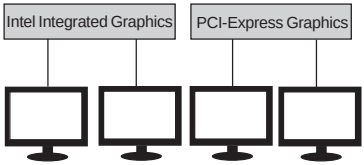
This item enables or disables IGD(Internal Graphics device) multi-monitor.

Press <Esc> to return to the Chipset Setup page.

Multi-Monitor technology

Multi-Monitor technology can help you to increase the area available for programs running on a single computer system through using multiple display devices.

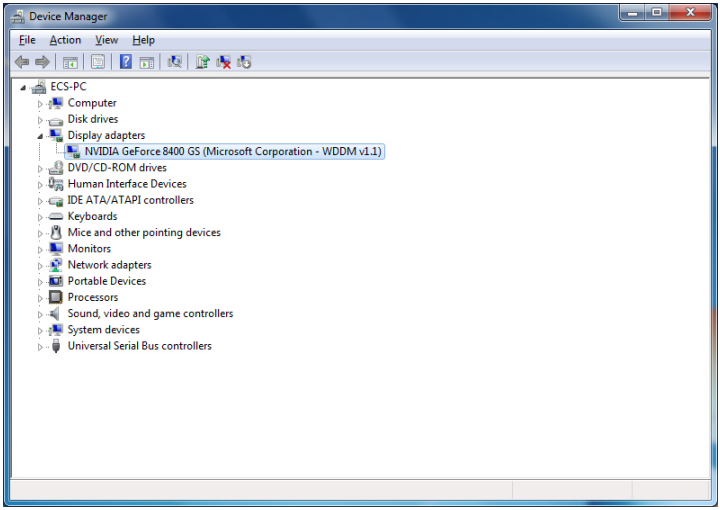
It is not only to increase larger screen viewing but aslo to improving personal productivity.



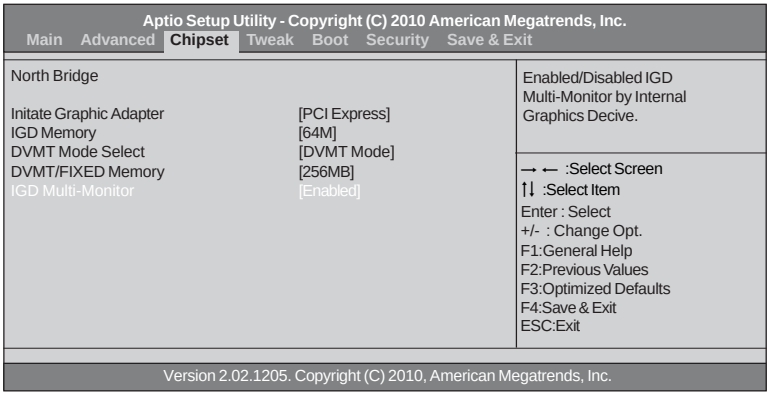
Please note that Multi-Monitor technology supports up to four monitors: one or two Intel integrated Graphics and one or two PCI-Express graphics devices under Windows 7.

Step 1. Insert PCCHIPS drives DVD to run Auto setup or browse the DVD to install Intel chipset drivers, VGA and sound drivers.(If you want know the detail information, please refer to chapter 4.)

Step 2. Install all the drivers of PCI-Express graphic cards. Click the Browse CD item, then appears the following screen. Select the driver you want to install(e.g NVIDIA GeForce 8400 GS(Microsoft Corporation-WDDM v1.1)) and double click it.

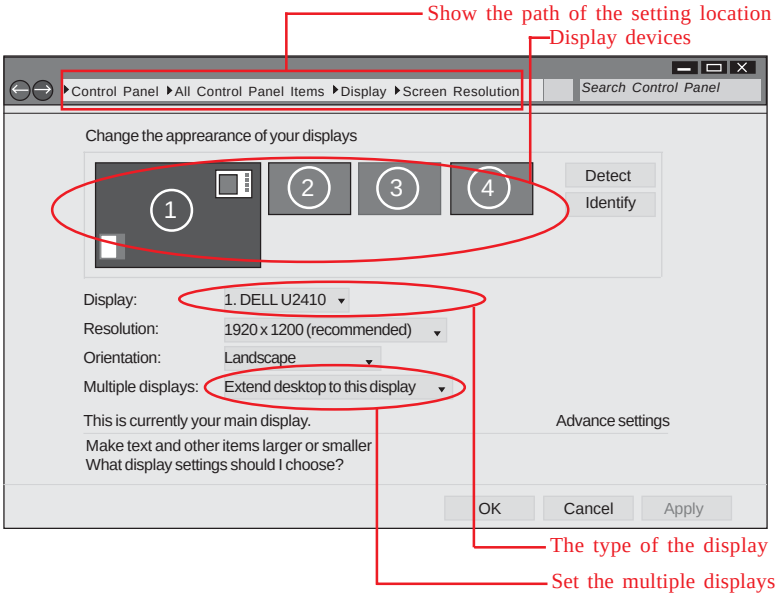


Step 3. Enable IGD Multi-Monitor from BIOS. In the following BIOS screen, please set IGD Multi-Monitor to [Enabled].

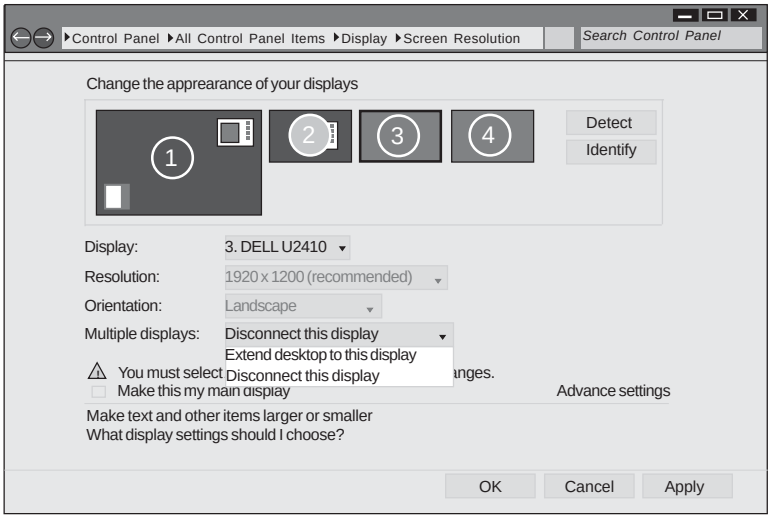

Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
Main Advanced Chipset Tweak Boot Security Save & Exit
North Bridge
Initate Graphic Adapter [PCI Express]
IGD Memory [64M]
DVMT Mode Select [DVMT Mode]
DVMT/FIXED Memory [256MB]
IGD Multi-Monitor [Enabled]
Enabled/Disabled IGD Multi-Monitor by Internal Graphics Decive.
→ ← :Select Screen
↑↓ :Select Item
Enter : Select
+/- : Change Opt.
F1:General Help
F2:Previous Values
F3:Optimized Defaults
F4:Save & Exit
ESC:Exit
Version 2.02.1205. Copyright (C) 2010, American Megatrends, Inc.

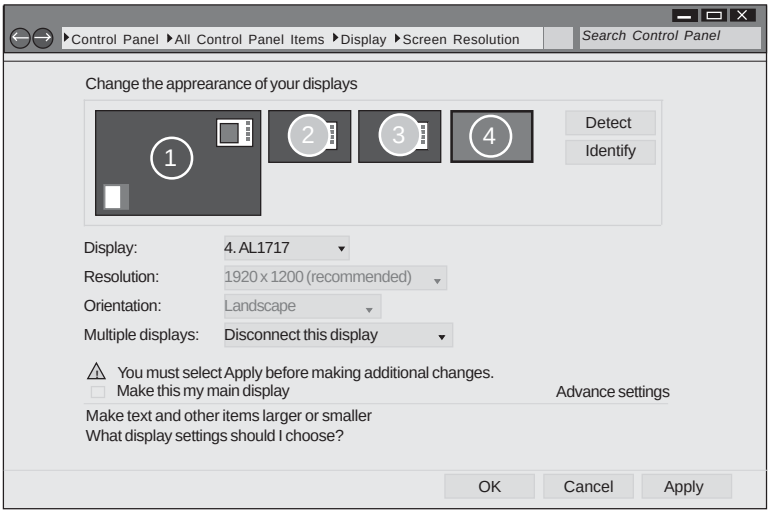
Step 4. Change the appearance of your displays under Windows 7.

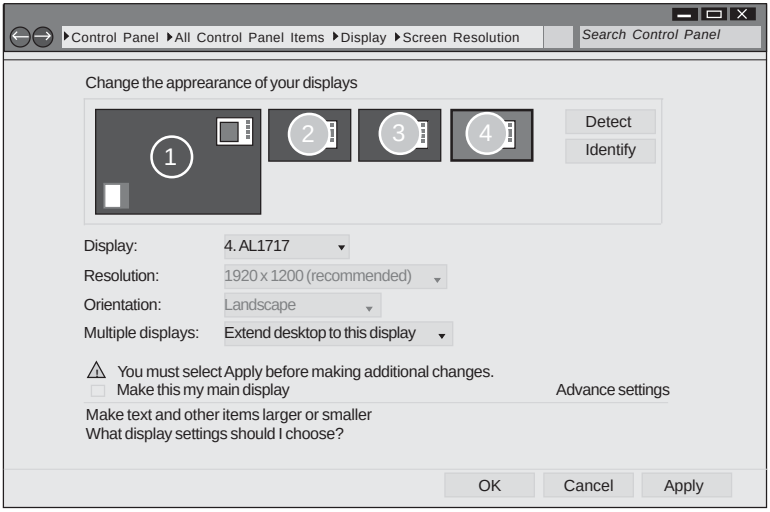
1. Enter the Control Panel menu, select the Display in the All Control Panel Items and click the Screen Resolution, then appears the following screen.



2.Select display devices, set the multiple displays option and to extend destop for display “Multi-Monitor technology”.

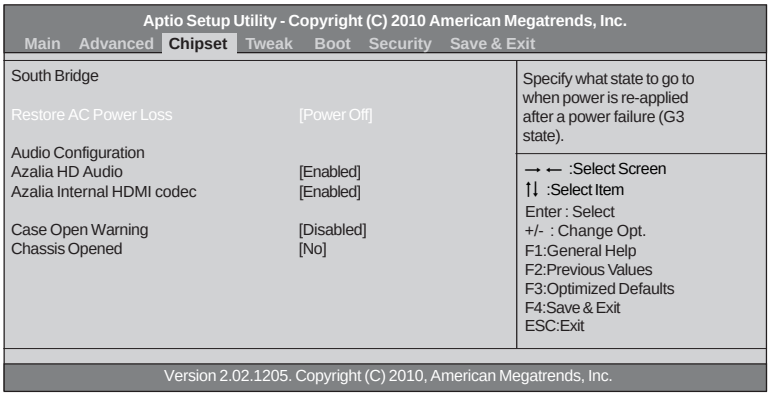



Control Panel ▸ All Control Panel Items ▸ Display ▸ Screen Resolution
Search Control Panel
Change the appearance of your displays
1
2
3
4
Detect
Identify
Display: 4. AL1717
Resolution: 1920 x 1200 (recommended)
Orientation: Landscape
Multiple displays: Disconnect this display
You must select Apply before making additional changes.
Make this my main display
Advance settings
Make text and other items larger or smaller
What display settings should I choose?
OK
Cancel
Apply


Control Panel ▸ All Control Panel Items ▸ Display ▸ Screen Resolution
Search Control Panel
Change the appearance of your displays
1
2
3
4
Detect
Identify
Display: 4. AL1717
Resolution: 1920 x 1200 (recommended)
Orientation: Landscape
Multiple displays: Extend desktop to this display
You must select Apply before making additional changes.
Make this my main display
Advance settings
Make text and other items larger or smaller
What display settings should I choose?
OK
Cancel
Apply

▶South Bridge

Scroll to this item and press <Enter> to view the following screen:


Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
Main Advanced Chipset Tweak Boot Security Save & Exit
South Bridge
Restore AC Power Loss [Power Off]
Audio Configuration
Azalia HD Audio [Enabled]
Azalia Internal HDMI codec [Enabled]
Case Open Warning [Disabled]
Chassis Opened [No]
Specify what state to go to when power is re-applied after a power failure (G3 state).
→ ← :Select Screen
↑↓ :Select Item
Enter : Select
+/- : Change Opt.
F1:General Help
F2:Previous Values
F3:Optimized Defaults
F4:Save & Exit
ESC:Exit
Version 2.02.1205. Copyright (C) 2010, American Megatrends, Inc.

Restore AC Power Loss (Power Off)

This item enables your computer to automatically restart or return to its operating status.

Audio Configuration

This item shows the information of the audio configuration.

Azalia HD Audio (Enabled)

This item enables or disables Azalia HD audio.

Azalia Internal HDMI codec (Enabled)

This item enables or disables Azaia Internal HDMI codec.

Case Open Warning (Disabled)

This item enables or disables the warning if the case is opened up, and the item below indicates the current status of the case.

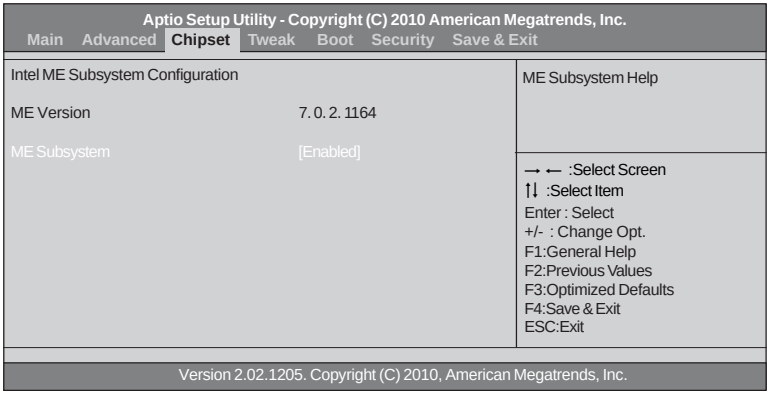
Chassis Opened (No)

This item indicates whether the case has been opened.

Press <Esc> to return to the Chipset Setup page.

▶ ME Subsystem

Scroll to this item and press <Enter> to view the following screen:


Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
Main Advanced Chipset Tweak Boot Security Save & Exit
Intel ME Subsystem Configuration
ME Version 7.0.2.1164
ME Subsystem [Enabled]
ME Subsystem Help
→ ← :Select Screen
↑↓ :Select Item
Enter : Select
+/- : Change Opt.
F1:General Help
F2:Previous Values
F3:Optimized Defaults
F4:Save & Exit
ESC:Exit
Version 2.02.1205. Copyright (C) 2010, American Megatrends, Inc.

ME Version (7.0.2.1164)

This item shows the ME version.

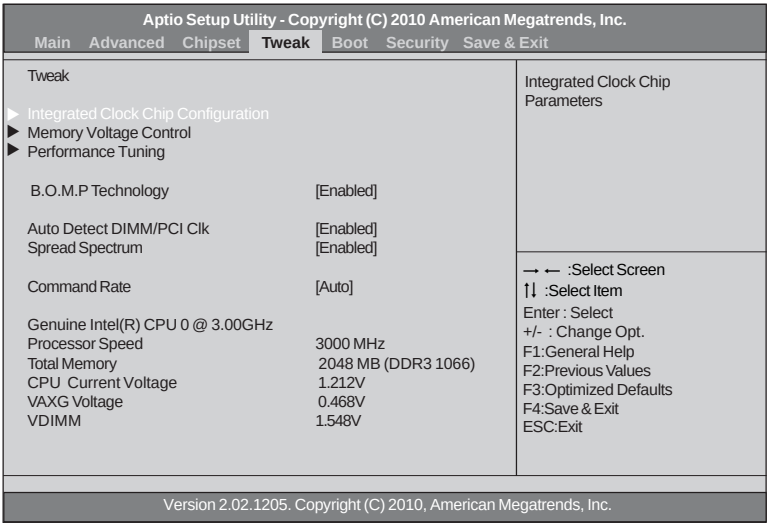
ME Subsystem (Enabled)

This item allows you to enable or disable ME subsystem.

Press <Esc> to return to the Chipset Setup page.

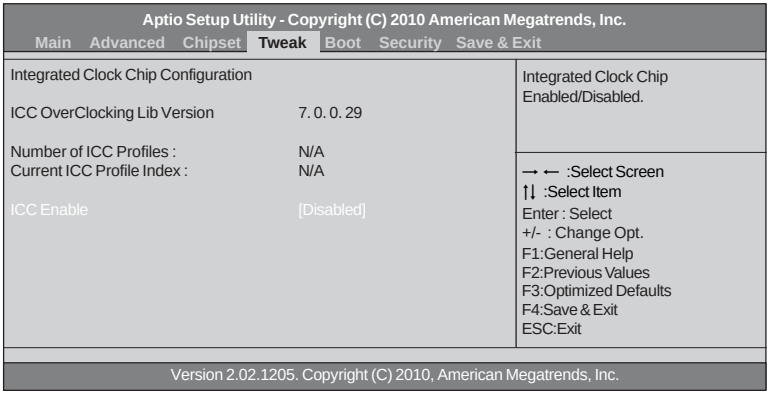
TWEAK Setup Page

This page enables you to set the clock speed and system bus for your system. The clock speed and system bus are determined by the kind of processor you have installed in your system.



▶Integrated Clock Chip Configuration

Scroll to this item to view the following screen:


Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
Main Advanced Chipset Tweak Boot Security Save & Exit
Integrated Clock Chip Configuration
ICC OverClocking Lib Version 7. 0. 0. 29
Number of ICC Profiles : N/A
Current ICC Profile Index : N/A
ICC Enable [Disabled]
Integrated Clock Chip Enabled/Disabled.
→ ← :Select Screen
↑↓ :Select Item
Enter : Select
+/- : Change Opt.
F1:General Help
F2:Previous Values
F3:Optimized Defaults
F4:Save & Exit
ESC:Exit
Version 2.02.1205. Copyright (C) 2010, American Megatrends, Inc.

ICC Over-Clocking Lib Version (7.0.0.29)

This item shows the ICC over-clocking lib version.

Number of ICC Profiles (N/A)

This item shows number of ICC profiles.

Current ICC Profiles Index (N/A)

This item shows current ICC profiles index.

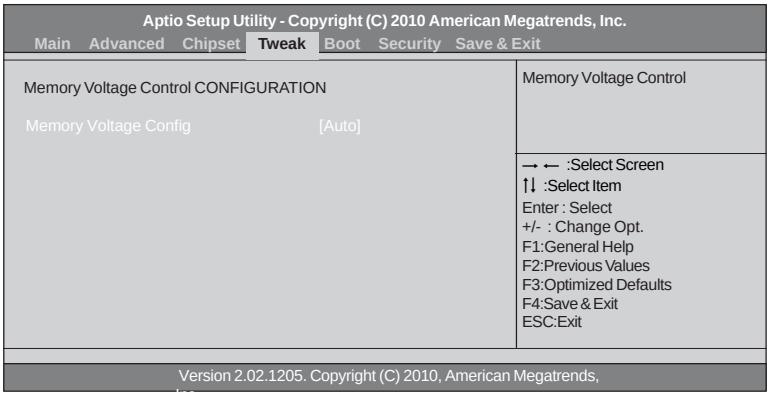
ICC Enable (Disabled)

This item allows you to enable or disable current ICC.

Press <Esc> to return to the Tweak Setup page.

►Memory Voltage Control Configuration

Scroll to this item to view the following screen:


Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
Main Advanced Chipset Tweak Boot Security Save & Exit
Memory Voltage Control CONFIGURATION
Memory Voltage Config [Auto]
Memory Voltage Control
→ ← :Select Screen
↑↓ :Select Item
Enter : Select
+/- : Change Opt.
F1:General Help
F2:Previous Values
F3:Optimized Defaults
F4:Save & Exit
ESC:Exit
Version 2.02.1205. Copyright (C) 2010, American Megatrends,

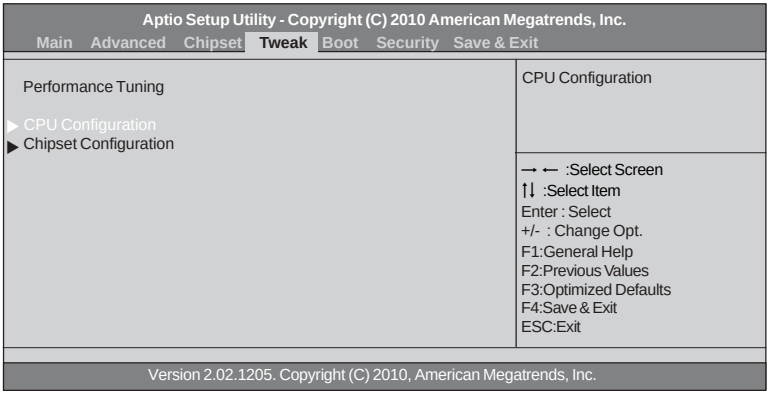
Memory Voltage Config (Auto)

This item allows users to select memory voltage config.

Press <Esc> to return to the Tweak Setup page.

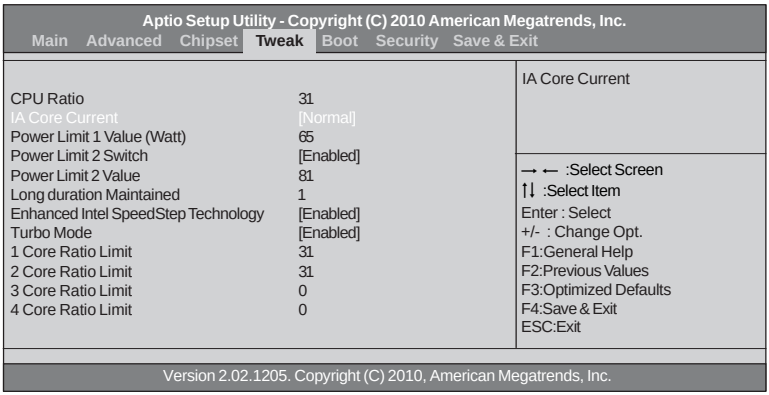
►Performance Tunning

Scroll to this item to view the following screen:



► CPU Configuration

Scroll to this item to view the following screen:


Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
Main Advanced Chipset Tweak Boot Security Save & Exit
CPU Ratio 31
IA Core Current [Normal]
Power Limit 1 Value (Watt) 65
Power Limit 2 Switch [Enabled]
Power Limit 2 Value 81
Long duration Maintained 1
Enhanced Intel SpeedStep Technology [Enabled]
Turbo Mode [Enabled]
1 Core Ratio Limit 31
2 Core Ratio Limit 31
3 Core Ratio Limit 0
4 Core Ratio Limit 0
IA Core Current
→← :Select Screen
↑↓ :Select Item
Enter : Select
+/- : Change Opt.
F1:General Help
F2:Previous Values
F3:Optimized Defaults
F4:Save & Exit
ESC:Exit
Version 2.02.1205. Copyright (C) 2010, American Megatrends, Inc.

CPU Ratio (31)

This item allows users to control non turbo CPU ratio.

IA Core Current (Normal)

Use this item to control CPU Current Limit. This is for Turbo mode.

Power Limit 1 Value(Watt) (65)

Use this item to control the limit of the TDP. This is for Turbo mode.

Power Limit 2 Switch (Enabled)

Use this item to control the Power Limit 2. This is for Turbo mode.

Power Limit 2 Value (81)

Use this item to control Power Limit 2. PL2 provides an upper limit of the TDP excursions. This is for Turbo mode.

Long Duration maintainded (1)

Use this item to control the time window over PL1 value should be maintained. This is for Turbo mode.

Enhanced Intel SpeedStep Technology (Enabled)

This item allows users to enable or disable the EIST(Enhanced Intel SpeedStep Technology).

Turbo Mode (Enabled)

This item allows you to control the Intel Turbo Boost Technology.

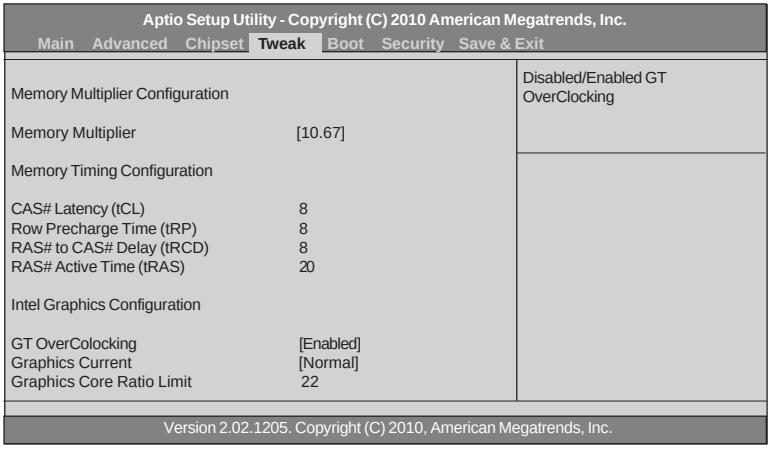
1/2/3/4-Core Ratio (31/31/0/0)

This item shows the Core Ratio limit value.

Press <Esc> to return to the Performance Tunning page.

► Chipset Configuration

Scroll to this item to view the following screen:


Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
Main Advanced Chipset Tweak Boot Security Save & Exit
Memory Multiplier Configuration
Memory Multiplier [10.67]
Memory Timing Configuration
CAS# Latency (tCL) 8
Row Precharge Time (tRP) 8
RAS# to CAS# Delay (tRCD) 8
RAS# Active Time (tRAS) 20
Intel Graphics Configuration
GT OverColocking [Enabled]
Graphics Current [Normal]
Graphics Core Ratio Limit 22
Disabled/Enabled GT OverClocking
Version 2.02.1205. Copyright (C) 2010, American Megatrends, Inc.

Memory Multiplier Configuration

This item shows the information of Memory Multiplier Configuration.

Memory Multiplier (10.67)

This item determines the operation of DDR SDRAM memory CAS(colulmn address strobe). It is recommanded that you leave this item at the default value. The 2T setting requires faster memory that specifically supports this mode.

Memory Timing Configuration

This item shows the information of Memory Timing Configuration.

CAS#Latency(tcl) (8)

This item determines the operation of DDR SDRAM memory CAS(colulmn address strobe). It is recommanded that you leave this item at the default value. The 2T setting requires faster memory that specifically supports this mode.

Row Precharge Time(tRP) (8)

This item specifies Row precharge to Active or Auto-Refresh of the same bank.

RAS# to CAS# Delay(tRD) (8)

This item specifies the RAS# to CAS# delay to Rd/Wr command to the same bank.

RAS# Active Time(tRAS) (20)

This item specifies the RAS# active time.

Initate Graphics Adapter

This item shows the information of Intel Graphics Configutation.

GT OverClocking (Disabled)

This item allows you to control the internal GFX Turbo mode.

Graphics Current (Normal)

This item shows the information of the Graphics Current.

Graphics Core Ratio Limit (22)

This item shows the information of the Graphics Core Ratio Limit.

Press <Esc> to return to the Performance Tunning page.

Press <Esc> to return to the Tweak Setup page.

B.O.M.P Technology (Enabled)

This item allows users to enable or disable B.O.M.P technology. This function can run safe setting to setup menu when system boot fail 3 times.

Auto Detect DIMM/PCI Clk (Enabled)

When this item is enabled, BIOS will disable the clock signal of free DIMM/PCI slots.

Spread Spectrum (Enabled)

If you enable spread spectrum, it can significantly reduce the EMI (Electro-Magnetic Interference) generated by the system.

Command Rate (Auto)

This item allows users to set command rate.

Genuine Intel(R) CPU 0 @ 3.00GHz

This is display-only field and displays the information of the CPU installed in your computer.

Processor Speed (3000MHz)

This item shows the CPU speed.

Total Memory (2048MB(DDR3 1066))

This item shows the total momery of DDR3.

CPU Current Voltage (1.212V)

This item diplays the CPU current voltage.

VAXG Voltage (0.468V)

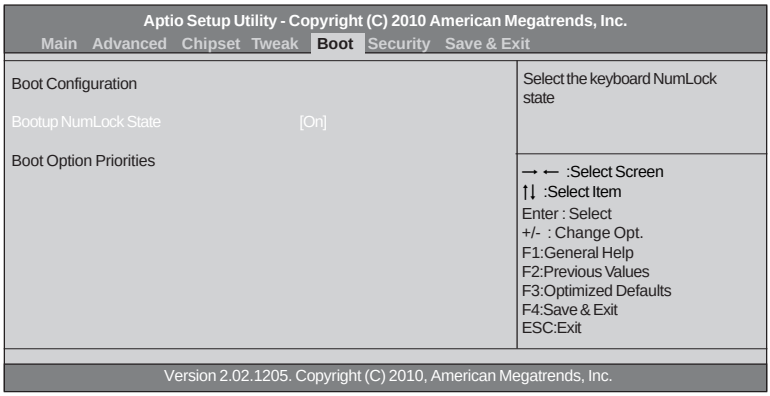
This item displays the current VAXG voltage.

VDIMM (1.548V)

This item displays the current VDIMM voltage.

Boot Setup Page

This page enables you to set the keyboard NumLock state.


Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
Main Advanced Chipset Tweak Boot Security Save & Exit
Boot Configuration
Bootup NumLock State [On]
Boot Option Priorities
Select the keyboard NumLock state
→ ← :Select Screen
↑↓ :Select Item
Enter : Select
+/- : Change Opt.
F1:General Help
F2:Previous Values
F3:Optimized Defaults
F4:Save & Exit
ESC:Exit
Version 2.02.1205. Copyright (C) 2010, American Megatrends, Inc.

Boot Configuration

This item shows the information of the boot configuration.

Bootup NumLock State (On)

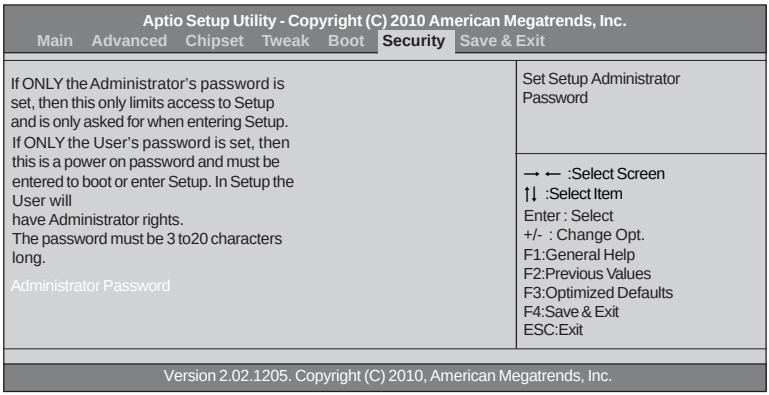
This item determines if the NumLock key is active or inactive at system start-up time.

Boot Option Priorities

This item enables you to select boot priorities for all boot devices.

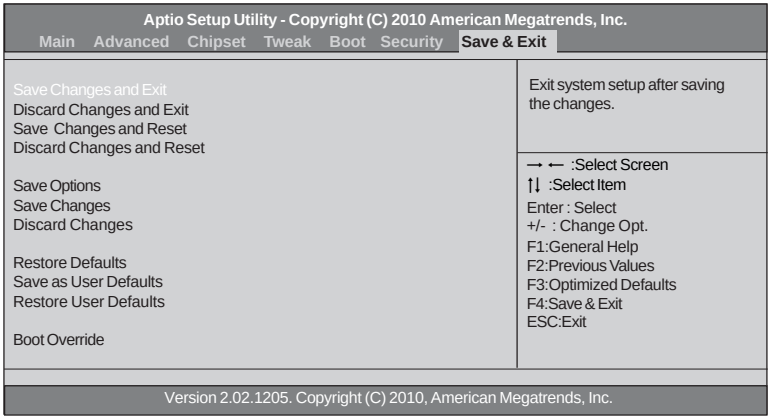
Security Setup Page

This page enables you to set setup administrator and password.


Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
Main Advanced Chipset Tweak Boot Security Save & Exit
If ONLY the Administrator's password is set, then this only limits access to Setup and is only asked for when entering Setup.
If ONLY the User's password is set, then this is a power on password and must be entered to boot or enter Setup. In Setup the User will have Administrator rights.
The password must be 3 to20 characters long.
Administrator Password
Set Setup Administrator Password
→ ← :Select Screen
↑↓ :Select Item
Enter : Select
+/- : Change Opt.
F1:General Help
F2:Previous Values
F3:Optimized Defaults
F4:Save & Exit
ESC:Exit
Version 2.02.1205. Copyright (C) 2010, American Megatrends, Inc.

Save & Exit Setup Page

This page enables you to exit system setup after saving or without saving the changes.



Save Changes and Exit

This item enables you to save the changes that you have made and exit.

Discard Changes and Exit

This item enables you to discard any changes that you have made and exit.

Save Changes and Reset

This item enables you to save the changes that you have made and reset.

Discard Changes and Reset

This item enables you to discard any changes that you have made and reset.

Save Options

This item enables you to save the options that you have made.

Save Changes

This item enables you to save the changes that you have made.

Discard Changes

This item enables you to discard any changes that you have made.

Restore Defaults

This item enables you to restore the system defaults.

Save as User Defaults

This item enables you to save the changes that you have made as user defaults.

Restore User Defaults

This item enables you to restore user defaults.

Boot Override

Use this item to select the boot device.

Chapter 4 Software & Applications

Introduction

This chapter describes the contents of the support DVD-ROM/CD-ROM that comes with the motherboard package.

The support DVD-ROM/CD-ROM contains all useful software, necessary drivers and utility programs to properly run our products. More program information is available in a README file, located in the same directory as the software.

To run the support disk, simply insert the disk into your DVD-ROM/CD-ROM drive. An Auto Setup screen automatically pops out, and then you can go on the auto-installing or manual installation depending on your operating system.

If your operating system is Windows XP/Vista/7, it will automatically install all the drivers and utilities for your motherboard.

Installing Support Software

1 Insert the support DVD-ROM/CD-ROM disc in the DVD-ROM/CD-ROM drive.

2 When you insert the DVD-ROM/CD-ROM disc in the system DVD-ROM/CD-ROM drive, the disk automatically displays an Auto Setup screen.

3 The screen displays three buttons of **Setup**, **Browse CD** and **Exit** on the right side, and three others **Drivers**, **Utilities** and **Information** at the top. Please see the following illustration.

The **Setup** button runs the software auto-installing program as explained in next section.

The **Browse CD** button is a standard Windows command that you can check the contents of the disc with the Windows file browsing interface.

The **Exit** button closes the Auto Setup window. To run the program again, reinsert the DVD-ROM/CD-ROM disc in the drive; or click the DVD-ROM/CD-ROM driver from the Windows Explorer, and click the Setup icon.

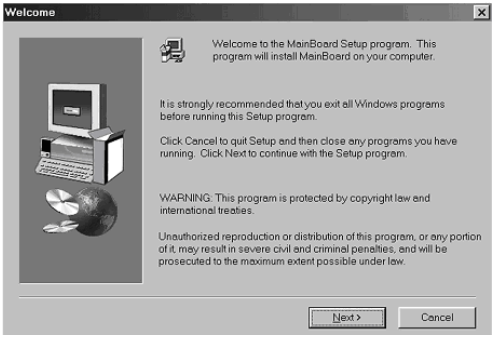
The **Utilities** button brings up a software menu. It shows the bundled software that this mainboard supports.

The **Information** brings you to the Install Path where you can find out path names of software driver.

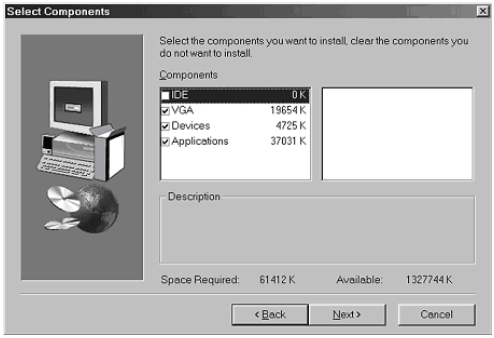
Auto-Installing under Windows XP/Vista/7

If you are under Windows XP/Vista/7, please click the **Setup** button to run the software auto-installing program while the Auto Setup screen pops out after inserting the support DVD-ROM/CD-ROM:

1 The installation program loads and displays the following screen. Click the **Next** button.


Welcome
Welcome to the MainBoard Setup program. This program will install MainBoard on your computer.
It is strongly recommended that you exit all Windows programs before running this Setup program.
Click Cancel to quit Setup and then close any programs you have running. Click Next to continue with the Setup program.
WARNING: This program is protected by copyright law and international treaties.
Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under law.
Next >
Cancel

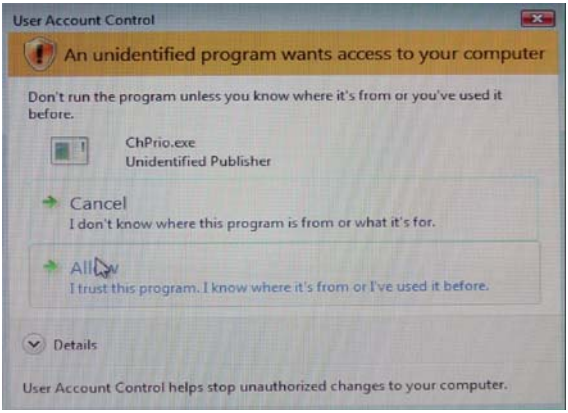
2 Select the items that you want to setup by clicking on it (the default options are recommended). Click the **Next** button to proceed.



3 The support software will automatically install.

Once any of the installation procedures start, software is automatically installed in sequence. You need to follow the onscreen instructions, confirm commands and allow the computer to restart as few times as needed to complete installing whatever software you selected. When the process is finished, all the support software will be installed and start working.

Windows Vista/7 will appear below UAC (User Account Control) message after the system restart. You must select "Allow" to install the next driver. Continue this process to complete the drivers installation.


User Account Control
An unidentified program wants access to your computer
Don't run the program unless you know where it's from or you've used it before.
ChPrio.exe
Unidentified Publisher
Cancel
I don't know where this program is from or what it's for.
Allow
I trust this program. I know where it's from or I've used it before.
Details
User Account Control helps stop unauthorized changes to your computer.

Bundled Software Installation

All bundled software available on the DVD-ROM/CD-ROM is for users' convenience. You can install bundled software as follows:

1 Click the **Utilities** button while the Auto Setup screen pops out after inserting the support DVD-ROM/CD-ROM.
2 A software menu appears. Click the software you want to install.
3 Follow onscreen instructions to install the software program step by step until finished.

Chapter 5 Trouble Shooting Tips

Start up problems during assembly

After assembling the PC for the first time you may experience some start up problems. Before calling for technical support or returning for warranty, this chapter may help to address some of the common questions using some basic troubleshooting tips.

a) System does not power up and the fans are not running.

1.Disassemble the PC to remove the VGA adaptor card, DDR memory, LAN, USB and other peripherals including keyboard and mouse. Leave only the motherboard, CPU with CPU cooler and power supply connected. Turn on again to see if the CPU and power supply fans are running.

2. Make sure to remove any unused screws or other metal objects such as screwdrivers from the inside PC case. This is to prevent damage from short circuit.

3. Check the CPU FAN connector is connected to the motherboard.

4. For Intel platforms check the pins on the CPU socket for damage or bent. A bent pin may cause failure to boot and sometimes permanent damage from short circuit.

5. Check the 12V power connector is connected to the motherboard.

6. Check that the 12V power & ATX connectors are fully inserted into the motherboard connectors. Make sure the latches of the cable and connector are locked into place.

b) Power is on, fans are running but there is no display

1. Make sure the monitor is turned on and the monitor cable is properly connected to the PC.
2. Check the VGA adapter card (if applicable) is inserted properly.
3. Listen for beep sounds. If you are using internal PC speaker make sure it is connected.
   a. continuous 3 short beeps : memory not detected
   b. 1 long beep and 8 short beeps : VGA not detected

c) The PC suddenly shuts down while booting up.

1. The CPU may experience overheating so it will shutdown to protect itself. Ensure the CPU fan is working properly.
2. From the BIOS setting, try to disable the Smartfan function to let the fan run at default speed. Doing a Load Optimised Default will also disable the Smartfan.

Start up problems after prolong use

After a prolong period of use your PC may experience start up problems again. This may be caused by breakdown of devices connected to the motherboard such as HDD, CPU fan, etc. The following tips may help to revive the PC or identify the cause of failure.

1. Clear the CMOS values using the CLR_CMOS jumper. Refer to CLR_CMOS jumper in Chapter 2 for Checking Jumper Settings in this user manual. When completed, follow up with a Load Optimised Default in the BIOS setup.

2. Check the CPU cooler fan for dust. Long term accumulation of dust will reduce its effectiveness to cool the processor. Clean the cooler or replace a new one if necessary.

3. Check that the 12V power & ATX connectors are fully inserted into the motherboard connectors. Make sure the latches of the cable and connector are locked into place.

4. Remove the hard drive, optical drive or DDR memory to determine which of these component may be at fault.

Maintenance and care tips

Your computer, like any electrical appliance, requires proper care and maintenance. Here are some basic PC care tips to help prolong the life of the motherboard and keep it running as best as it can.

1. Keep your computer in a well ventilated area. Leave some space between the PC and the wall for sufficient airflow.
2. Keep your computer in a cool dry place. Avoid dusty areas, direct sunlight and areas of high moisture content.

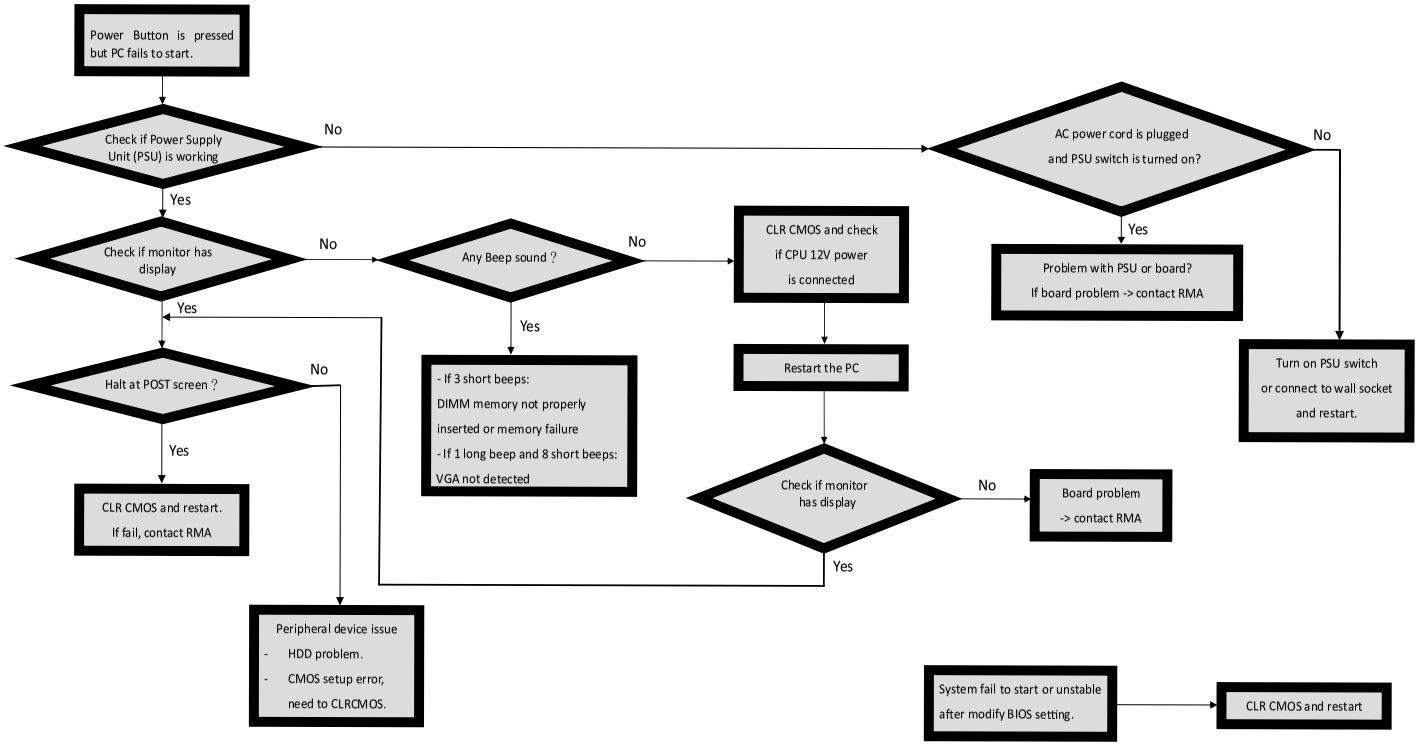
3. Routinely clean the CPU cooler fan to remove dust and hair.

4. In places of hot and humid weather you should turn on your computer once every other week to circulate the air and prevent damage from humidity.

5. Add more memory to your computer if possible. This not only speeds up the system but also reduces the loading of your hard drive to prolong its life span.

6. If possible, ensure the power cord has an earth ground pin directly from the wall outlet. This will reduce voltage fluctuation that may damage sensitive devices.

Basic Troubleshooting Flowchart


Power Button is pressed but PC fails to start.
Check if Power Supply Unit (PSU) is working
No
Yes
AC power cord is plugged and PSU switch is turned on?
No
Yes
Problem with PSU or board? If board problem -> contact RMA
Turn on PSU switch or connect to wall socket and restart.
Check if monitor has display
No
Yes
Any Beep sound ?
No
Yes
- If 3 short beeps: DIMM memory not properly inserted or memory failure
- If 1 long beep and 8 short beeps: VGA not detected
CLR CMOS and check if CPU 12V power is connected
Restart the PC
Check if monitor has display
No
Yes
Board problem -> contact RMA
Halt at POST screen ?
No
Yes
CLR CMOS and restart. If fail, contact RMA
Peripheral device issue
- HDD problem.
- CMOS setup error, need to CLRCMOS.
System fail to start or unstable after modify BIOS setting.
CLR CMOS and restart